is obvious, that although in the great majority of cases I consider the exhibition of mercury unnecessary or injurious, yet in one form of disease, that which produces the scaly eruption, lepra or psoriasis, it is the remedy upon which I place my sole reliance; and in other forms of venereal which produce the papular, pustular, tubercular, or rupia eruptions, there are stages and states in which it will be found a most useful auxiliary. Therefore, though it may accord with the natural indolence of our dispositions to treat all cases in either one way or the other, yet no practitioner, I aver, will be successful in following this routine mode of practice, who does not exert his powers of discrimination to ascertain to what class the symptoms under treatment belong; for no matter, in a practical point of view, whether there is one or a plurality of venereal poisons, (as I advocate,) it is of the utmost consequence, to ensure an efficient and successful issue, to consider the form of the disease under consideration, and to which of my classes it appertains.—*Prov. Med. Journ.*, May 21, 1845.

58. *Aneurism of the Arteria Innominata and Arch of the Aorta.* By GEORGE W. CAMPBELL, M. D., Lecturer on Surgery in M'Gill College.—(*British American Journal of Medical and Physical Sciences*, April, 1485.)—John Smith, aged 48, called on Dr. Campbell on the 22d of February last, with a pulsating tumour occupying the lower portion of the right side of the neck, of the origin of which he gave the following account:—He stated that about a fortnight previously when in the act of splitting a piece of firewood, the axe being raised at the full stretch of his arms above his head, he felt something give way in the lower part of his neck, accompanied by a sudden sensation of gasping for breath, which lasted only a few seconds; upon putting his hand upon the right side of his neck, he discovered a small tumour about the size of a marble immediately above the sterno-clavicular articulation, pulsating strongly, and so movable, that he could get his fingers round it and push it backwards and forwards under the skin. Not deeming it of any importance, he paid little attention to it, and as it gave him no inconvenience, and was unattended with pain, he was only induced to ask medical advice on account of the great rapidity of its growth.

Smith was a tall, powerfully built man, of a sanguineous temperament, had served for twenty-four years in the King's Dragoon Guards, had left the service two years previously upon the return of the regiment to England, and for some years past had been greatly addicted to the intemperate use of ardent spirits. He had complained for several years of occasional severe pain in the right shoulder and side of the neck and head, which he thought was rheumatism, but with the exception of these occasional attacks, was strong and healthy, was never absent from parade, and had no difficulty in performing his military duties, while in the service, or in attending to his work as an ostler in a livery stable, since he left it. Had no palpitation, cough, or shortness of breath. When Dr. C. first saw him, the tumour had attained the size of a large egg, was visible both upon the tracheal, and external margin of the sterno-cleido-mastoid muscle, measuring 3¼ inches in its longest diameter, which was transverse to the axis of the neck, and extending vertically above the sternum and clavicle for 2½ inches; it could be followed into the chest, and was felt pulsating as low as the junction of the cartilage of the second rib with the sternum. The tumour was capable of being almost entirely dispersed by compression, the pulsation being equable all over its surface, apparently increasing in proportion to the pressure employed, at each impulse strongly elevating the fingers, and whenever the pressure was removed, instantly regaining its original dimensions. Upon firmly compressing the carotid artery of the right side against the transverse processes of the cervical vertebræ, the pulsation in the tumour was arrested, and it became soft and flaccid. A similar effect was produced, but not in so marked a degree, by compressing the subclavian over the first rib. The pulse was equally good at the wrist and in the branches of the carotid on either side. Upon percussing the chest, the inner portion of the right sub-clavicular region was found to sound dull, and upon the application of the stethoscope, a distinct pulsation was discovered in that situation, gradually losing its intensity as the heart was approached. This pulsation gave a strong impulse, was double, was not attended by any thrill, and only a very slight bruit de soufflet: it might be compared to a heart beating strongly at the top and to the right side of the sternum. Neither bruit nor thrill was discoverable in the tumour above the clavicle.

The effect of a restricted diet and the exhibition of digitalis with avoidance of exercise was tried for a fortnight, at the end of which period, although the general force of the circulation was much diminished, and the man had become weak and pale, the tumour still continued to increase slowly in bulk, and its parietes became very thin. As the aneurism, if left to itself, would evidently very shortly prove fatal, and as by its extension both in an upward and outward direction, it was daily adding to the difficulty, and diminishing the prospect of success from an operation upon either of the great arterial trunks, it was resolved to give the patient the chance afforded by the operation upon the distal side of the tumour, so ably advocated by Mr. Wardrop. It was accordingly performed on the 8th of March, in the following manner:

"The patient was placed upon a table in the recumbent posture, with the head and shoulders slightly elevated, the neck extended by raising the chin, and inclining the face towards the opposite side. An incision about three inches long was made through the skin and superficial fascia, along the anterior border of the sterno-mastoid muscle, extending from a little below the angle of the jaw, to the superior boundary of the tumour, which was upon a level with the cricoid cartilage; the platisma and deep fascia were divided to the same extent upon the director, the sterno-mastoid and omo-hyoid, which were now distinctly brought into view, were respectively drawn outwards and inwards, by broad retractors, and a little further division of the cellular tissue by a silver fruit knife, and the finger nail, exposed the sheath of the vessels. Owing to the muscularity of the neck the artery lay at a considerable depth from the surface; the integuments being borne off the sheath of the vessels by the strong contraction of the mastoid muscle, a very large vein was seen crossing the artery, apparently coming from the thyroid body, and passing obliquely outwards and downwards to empty itself into the deep jugular; the vein being drawn upwards, and the sheath being opened, an aneurismal needle, armed with a well waxed single silk ligature, was passed round the artery; the vagus nerve was seen external to the artery, but the deep jugular vein did not come into view. The artery was raised a little from its sheath upon the ligature, to ascertain the condition of its coats, which were found very sound and healthy; the ligature was then gradually tightened and firmly secured by a common double knot, one end of it being afterwards cut off. Immediately upon tightening the ligature, the aneurismal swelling completely disappeared, and no trace of it could be discovered for several minutes; after a short time, however, it began gradually to return, but it did not nearly regain its original size, measuring only 2 inches in the transverse diameter, and rising little more than an inch above the sternum; the pulsation was by no means so strong, and it was much softer, and more compressible than formerly. The pulse before the operation was 96; during the operation it sank to 88, and became very small; immediately afterwards it again rose to 96; little or no blood was lost. Immediately upon tightening the ligature, the patient complained of severe pain in the side of the head, the pupil of the opposite eye became slightly dilated, he felt for a few moments bewildered and confused, and could with difficulty be induced to remain quiet. The wound in the integuments was brought together by the interrupted suture, a compress and bandage were applied over the aneurism, and the patient was put to bed with his head and shoulders elevated. The liniment. sapon. c. opio. was ordered to be applied hot, to the side of his head, where he complained of the pain; the digitalis was to be continued, and the diet was restricted to toast and gruel in small quantities."

For the first two days the patient was very much troubled with a teazing cough, which was somewhat allayed by opiates. On the 11th of March primary union had taken place in lower half of incision, upper half discharging slightly and looking healthy. Tumour diminished to the size of a walnut, very compressible, and pulsating by no means strongly. Pulsation still heard distinctly at upper part of sternum, without bruit and double as formerly. Cough not so troublesome. The compress was re-applied. The case made satisfactory progress from this to the 23d of March, at which date the wound had nearly cicatrized—ligature was still firm—tumour quite flat, and can only be discovered by a slight pulsation, which still exists at inferior and internal part of its former situation. Pulse returned to temporal artery on right side—pupil of left eye still slightly dilated—pulsation at upper part of sternum much diminished in impulse—functions all natural. The compress upon the tumour was discontinued, and the digitalis and restricted diet persevered in.

The following night the patient sat up by the stove for a considerable time without any other covering than his night shirt; this exposure was followed by a rigor, succeeded by high fever, and Dr. C. found him on his visit, March 23, slightly delirious, complaining much, with hurried respiration; heart's action very tumultuous and strong. By depletion, opiates, &c., he was relieved. March 24, upon examining the chest, the dull sound on percussion was found to extend over a much greater portion of the right sub-clavicular region than formerly, and a pulsating tumour could be felt with the fingers extending from the cartilage of the third rib to the clavicle. Upon applying the stethoscope, no bruit was discoverable, but impulse was very strong and sound double—a loud bronchial rhonchus was heard upon the right side during inspiration; the point at which it was most distinctly heard, was posteriorly, internal to the scapula; it was at the time attributed to compression of the right branch of the trachea by the aneurism—no return of tumour in the neck.

March 27.—Dr. C. was sent for to his patient at 2 o'clock, A. M., and found him sitting up in bed suffering from great dyspnœa—countenance of a livid colour—pulse 150 very small—heart's action exceedingly tumultuous—left pupil largely dilated—two pulsating tumours were felt rising up upon both sides of the sternum, the larger one upon the right side, in the situation of the original aneurism, these tumours were not well defined, as the whole neck was swollen and of a livid colour from venous engorgement. The distressing sense of suffocation gradually increased, and he expired at five o'clock, P. M., of the same day. He was perfectly sensible to the last and knew that he was dying from the first seizure.

"*Post-mortem examination* 15 *hours after death.*—The surface of upper part of chest, neck, and face, presented a livid appearance from venous engorgement. Upon opening the thorax a large tumour was discovered, resembling very much, in size and appearance, the heart enclosed in the pericardium, occupying the superior portion of the right side of the chest, and extending towards the left side, half an inch beyond the centre of the first bone of the sternum. The tumour filled up the whole of the anterior and middle mediastinum, above and in front of the root of the right lung, extending from the cartilage of the third rib to the top of the sternum. The tumour was removed from the body along with the heart and great vessels within the thorax; the upper part of the sternum, with the inner half of the clavicle, and the 1st, 2d, and 3d ribs attached to it; the trachea, œsophagus, anterior muscles, great vessels, and nerves of the neck, were also removed, as far up as above the os hyoides, and the whole was subsequently carefully dissected. The left ventricle of the heart was found slightly hypertrophied, the aortic valves were free from disease, the ascending aorta was greatly dilated, and numerous scales of bone were found deposited in, and under its lining membrane. The aneurismal swelling commenced at the root of the arteria innominata, involving the whole of the anterior parietes of that vessel, to within a quarter of an inch of its bifurcation, and the transverse portion of the arch of the aorta, as far as the giving off of the left carotid, the origin of which was slightly dilated. The first bone of the sternum, the sternal ends of the clavicle and first rib, were denuded of periosteum, and formed part of the anterior wall of the aneurismal sac, the first bone of the sternum being deeply hollowed out by the pressure of the contained blood. From the superior part of the large tumour, the remains of two smaller aneurisms were found arising; the posterior one, the larger, extended into the neck, upwards, and towards the right side, for at least a couple of inches above the clavicle; its sac in front was composed of the deep cervical fascia, and external and internal to the mastoid muscle, was exceedingly thin and weak. The sac of the anterior aneurism was capable of containing a small walnut; it arose from the large sac about the centre of the sternum, by a distinct opening, immediately in front of that into the posterior aneurism; the sacs of both these aneurisms were found empty and collapsed. The interior of the large aneurism was almost completely filled by a large coagulum, weighing eight ounces and a quarter avoirdupois, very dense in structure, not deep in colour, formed of distinct lamellæ, and in many places slightly adherent to the parietes of the sac. A loose coagulum of blood, very different in appearance and structure from the fibrinous mass occupying the interior of the aneurism, was found in the ascending aorta. The descending aorta was dilated as far as the diaphragm, and contained ossific deposits in its interior. The right carotid was found nearly divided by ulcerative absorption, produced by the ligature, half an inch below its division; the vessel was plugged up by a firm coagulum, for upwards of two inches below the ligature, the superior part was also filled up in a similar manner as far as its bifurcation. The superior part of the right lung was found condensed in its substance, from the pressure of the tumour. The left lung was congested throughout, and posteriorly and inferiorly was found in the first stage of pneumonia. The liver was larger and harder than natural, the other abdominal viscera were healthy. The brain was found quite healthy, and the branches of the internal carotids seemed equally large on both sides."

The above case, Dr. C. remarks, is instructive in several particulars. It proves first, what a great amount of aneurismal disease may exist for a long period, (as evidently must have been the case in this instance from the deep erosion of the sternum,) without any severe local or constitutional disturbance. It proves secondly, how much compression of the carotid can affect the circulation in an aneurism of the innominata, even involving the arch of the aorta; upon the application of the ligature, the tumour for the time entirely disappeared, and never again regained any thing like its original bulk. I have little doubt also, says Dr. C., that the production of the fibrinous coagulum, found in the interior of the larger aneurism, was subsequent to, and in a great measure produced by, the obstruction in its circulation caused by the ligature of the carotid. The mere bulk of this unyielding mass, from its pressure upon important organs, conjoined with the febrile paroxysm brought on by the man's own imprudence, may have had a considerable share in bringing about the fatal result.

59. *New Fracture of the Humerus.*—Dr. Houston laid before the pathological Society of Dublin some examples of a peculiar lesion of bone, which, he stated, had never been appreciated in its true light by the profession until demonstrated at that society by Mr. Smith; he meant that lesion of the anatomical neck of the humerus to which the term impacted fracture may be properly applied. He had three specimens for exhibition. The great interest attached to the observation of this accident was the establishment of an analogy between it and a similar one, which also had been first noticed in that city by Dr. Colles, in connection with the femur, and called impacted fracture of the neck of the femur. Sir Astley Cooper, in a paper in the Guy's Hospital Reports, on fractures of the neck of the humerus, had described and even delineated this accident, but without taking any notice of the remarkable impaction to which the bones were subjected. An important practical observation made by Dr. Houston was, that in all his cases there had been complete and firm reunion of the fragments, by bone, and that, too, with only a trifling degree of deformity. With regard to the diagnosis of this injury, Sir A. Cooper, in the memoir above alluded to, says that the lower fragment gets forward, so as to admit of being pressed and felt under the pectoral muscle, and lays this down as one of the most characteristic symptoms of the injury. Dr. Houston showed that, in his cases, and also in the drawings published by Sir A. Cooper and Mr. Smith, in which the fracture ran through the anatomical neck of the humerus, close to the articulating surfaces, the displacement of the lower fragment was more outwards than inwards, the impaction being of such a nature that the inner edge of the shaft was driven into the centre of the spongy part of the head; or, in other words, that the detached head was twisted half round, so as to be placed somewhat on the inside of the shaft; a position which the bones had manifestly taken and maintained from the first moment of the accident, and which rendered it physically impossible that the lower fragment could ever have been felt in the position which it has been said by Sir A. Cooper to assume, under the pectoral muscle. In all the cases of the kind of fracture known to Dr. H., the angle formed at the point of the lesion was salient outwards, viz., at the great tuberosity; and this was shown by him to contrast strongly with the deformity in